

**National Plan for Comprehensive Disaster Reduction
During the "Eleventh Five-Year Plan" Period
of the People's Republic of China**



Published By China National Committee of Disaster Reduction

PREFACE

National Plan Comprehensive Disaster Reduction During the “Eleventh Five-Year Plan” Period (hereinafter referred to as the National Plan) of the People’s Republic of China was approved by the State Council of China and promulgated on August 5th, 2007.

The National Plan meets the immediate needs of strengthening the overall capability-building in disaster reduction, prevention and fighting. It is of great significance for ensuring the safety and security of both people and property and promoting the all-round, well-balanced and sustainable socio-economic development. Local governments and relevant departments have attached great importance to the National Plan by reinforcing organization, leadership and coordination to formulate policy measures to ensure the implementation of the National Plan so as to achieve the goals set in the document.

China National Committee for Disaster Reduction

2007.10.23

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1. The Current Situation and Challenges of Comprehensive Disaster Reduction in China

1.1. The Current Situation

The Central Committee of the Communist Party of China (CCCPC) and the State Council pay great attention to disaster reduction, which has for long been viewed as highly critical to realizing the overall goals for sustainable socio-economic development. Ever since the Disaster Reduction Plan of the People's Republic of China (1998-2010) was promulgated and implemented by the State Council in 1998, all regions, departments and sectors have strengthened the construction of disaster reduction projects and related work. As a result, the capacity to resist and reduce natural disasters in China has been obviously enhanced, the proportion of disaster-triggered damages in China's overall GDP has fallen sharply.

1.1.1 Significant progress made in disaster management system, mechanism, and legislation. In January 2005, the State Council renamed the China National Committee for the International Decade for Natural Disaster Reduction (CNCIDNDR) as National Committee for Disaster Reduction of China or NCDRC. An expert commission was created and comprehensive coordinating agencies for

disaster reduction were established in some localities. Disaster reduction commissions were set up in 8 provinces, while institutions for disaster relief coordination were set up with similar functions in another 15 provinces. Overall, disaster reduction management system, policy counseling support system and comprehensive coordination mechanism have been improved. Thirty-odd laws and regulations have been enacted and enforced covering seismic prevention, firefighting, flood control, meteorology, and sand prevention and control, among others. This is clearly indicative of an ever-improving regulatory system on the front of disaster reduction.

1.1.2 An effective system for disaster monitoring and early warning has basically taken shape. Over the years China has worked hard to improve the system for disaster monitoring and early warning regarding meteorological, marine, hydrological, geological and seismic disasters as well as crop diseases and pests, forest fires, diseases and pests. As things stand now, coverage and timeliness of information release have been improved effectively.

1.1.3 Impressive progress has been made in disaster reduction programs. More financial resources have been diverted to fund the construction of key projects and facilities to reduce vulnerabilities in relation to floods,

droughts, earthquakes, winds and storms, sand storms and desertification and ecological improvements. Projects completed at this point include the well-known Three Gorges Project on the Yangtze, Gezhouba Project, Xiaolangdi Project, "Sanbei" Forest Belt Project and Program of Combating Desertification in the Sand and Wind Source Area Affecting Beijing and Tianjin. With these initiatives taken place, the capacity to resist the disaster in these highlighted regions and urban areas has been improved.

1.1.4 An emergency response system to natural disasters has been established.

The State Council has promulgated and implemented the Overall National Emergency Plans in Response to Public Contingencies and five special plans concerning natural disasters. In addition, 31 provinces (autonomous regions and municipalities directly under the central government), production and construction corp of Xinjiang, 93% of all municipalities and 82% of counties have launched local plans for disaster response and relief. Reserve network of supplies for disaster relief and mitigation has been basically set up. Central-level warehouses of reserve materials for disaster relief have been established in ten cities, including Shenyang, Tianjin, Wuhan, Nanning, Chengdu and Xi'an, and similar local reserve facilities have been in place in some disaster-prone areas. Peo-

ple's governments at both central and local levels are scaling up their financial input into disaster relief efforts as the mechanism for prompting transfer of disaster relief funds continues to be improved over time.

1.1.5 Programs to raise the public's awareness of scientific disaster reduction and international exchanges and cooperation on disaster reduction have made progress across the board.

Cases in point are as follows: the General Office of the State Council issued the Overall Program for the Implementation of Public Awareness Raising of Scientific Emergency Management; National Committee for Disaster Reduction of China, Ministry of Education and Ministry of Civil Affairs jointly issued Recommendations on Strengthening School Disaster Reduction; governments at different levels and relevant departments have organized and unfolded science programs of all kinds to reach out to the public about knowledge in disaster reduction, raise public awareness of disaster prevention and equip them with proven know-how to save their own lives and others in case of disasters. On top of that, a host of high-profile international events on disaster reduction was launched, including Asian Conference on Disaster Reduction which was organized by China. China is also a signing party to the SCO Agreement on Inter-governmental Mutual Assistance for Dis-

aster Relief. China is also a proactive player in bilateral and multilateral disaster relief efforts across the globe and has entered into close partnerships on disaster reduction with relevant UN agencies and other organizations, at both regional and international levels.

1.2. Existing Weak Links

For now there exist some weak links in disaster reduction that need to be addressed immediately. First, some local mechanisms for overall disaster reduction coordination leave much to be expected, the mechanism for inter-departmental information sharing and coordinative action has yet to mature, and the mechanism to mobilize the NGOs and the wider civil society into disaster reduction efforts needs to be strengthened. Second, there is inadequacy of comprehensive legislation on disaster reduction. More supporting policies are required, and the potential utilization of disaster insurance has yet to be fully unleashed. At the same time, benchmark allowances for disaster relief, recovery and reconstruction are rather modest at the moment. Third, the disaster monitoring system remains incomplete, the coverage and timeliness of early warning information has yet to be enhanced, and construction of an effective system for disaster monitoring, information sourcing and assessment is lagging behind. Forth, the infrastructure for disaster preven-

tion and reduction has yet to be upgraded, shelter construction programs in some disaster-prone regions cannot meet immediate needs at the moment, and the level of disaster prevention in large cities or city clusters has to be improved. Meanwhile, the disaster-resistance standards of rural housing are prevalently low. Fifth, the grass-roots system for disaster emergency response plans remains to be improved, the reserve system for disaster response and relief supplies has yet to be completed, and the equipment used for emergency communications, command & control and transport should be renewed. Sixth, programs including censuses on disaster reduction resources and overall survey and assessment of disaster risks have yet to be launched; the distribution of disaster risks remains unclear, and the foundation underpinning supervision and monitoring of hidden dangers remains rather weak. Seventh, technical support for disaster reduction in general and sci-tech contribution to comprehensive reduction of disaster risks in particular remain rather weak; the R&D and applications of key technologies and equipment to disaster monitoring and early warning, disaster prevention and response have yet to be scaled up; more researches are needed as to why and how catastrophic disasters occur, as well as what preventive countermeasures we can adopt. Eighth, disaster management person-

nel at every level are expected to improve their professionalism; much more needs to be done to inform people at the grassroots level, i.e. villages and communities, of scientific way of disaster reduction; public awareness of disaster reduction needs to be elevated.

1.3. Challenges

China is one of the countries in the world that have been affected frequently by natural disasters. It is vulnerable to disasters of different kinds featuring extensive geographical distribution, high frequency and severe ferocity. Floods, droughts, typhoons, wind and hail, thunder and lightning, heat waves, sand and dust storms, earthquakes, geological disasters, wind and storm tides, red tides, forest and grassland fires and plant and forest diseases and pests keep threatening China. More than 70% of the cities in China covering 50% of China's total population are situated in areas at high risk of natural scourges, like meteorological, geological and marine calamities. Figures show that over the past 15 years, some 300 million people have been affected and about three million houses have collapsed as a result of natural disasters every year. At the same time, around eight million people have been relocated in their wake with nearly RMB 200 billion worth of direct economic losses incurred.

In recent years, the correlation between

global warming and increasing natural disaster risks has emerged as one focus of attention and a highlighted area for research in the international community. Studies suggest that global warming will have multi-faceted and multi-tiered implications for the distribution of disaster risks and the regular pattern of disaster occurrence in China. Strong typhoons will come more actively and violently, occurrences of storms and floods will increase, and the likelihood of catastrophic floods in river basins is increasing. Geological disasters such as flash floods, landslides and mud and rock flows triggered by torrential rains in some areas will increase as well. Northern China is at greater risks of experiencing extreme cold and catastrophic snow disasters. Seasonal rainfall distribution will become more unbalanced, as northern China will suffer from longer spells of drought while southern China is more vulnerable to heat waves and devastating droughts. In addition, forests and grasslands are at greater risks of fires, and desertification is likely to worsen in northern part of the country. Agricultural and forest diseases and pests may affect more areas, and the likelihood of marine disasters including wind and storm tides and red tides hitting China has also increased.

In response to the grave disaster risks, we have formulated the National Plan for Comprehensive Disaster Reduction During the

Eleventh Five-Year Plan Period to help achieve the strategic goal of “enhancing the state’s and general public’s overall capabilities to fight against disasters” as adopted at the 6th plenary session of the 16th Party National Congress. The current Plan was formulated after we carefully reviewed and evaluated the implementation of the Disaster Reduction Plan of the People’s Republic of China (1998-2010), and it was done in accordance with the Eleventh Five-Year Plan for National Economic and Social Development of the People’s Republic of China and other relevant laws and regulations.

2. Guidelines, Fundamental Principles and Goals & Objectives

2.1 Guidelines

Seek to uphold scientific concept of development in all aspects, act upon the requirements of people first and building a harmonious socialist society, and take into consideration natural disasters of all kinds and different respects of disaster reduction; take full advantage of resources of all regions, departments and sectors to reduce the effects of disasters; integrate diversified means, including administrative and legal levers and technological and market forces to develop a sound system for comprehensive disaster reduction management and an effective op-

erational mechanism; stay focused on building up the capacity for disaster monitoring, early warning, disaster prevention and preparedness, emergency response, disaster relief, recovery and reconstruction; remain committed to switching the focus of disaster reduction from minimizing disaster losses to reducing disaster risks; work to elevate the capacity for disaster reduction on all fronts and improve risk management. All these efforts are designed to ensure safety and security of both people and property and boost well-rounded, coordinated and sustainable socio-economic development.

2.2 Fundamental Principles

Take governments as leading players, deliver tiered management and mobilize the civil society into action; put disaster prevention first and combine it with disaster resistance and relief; ensure accountability on the ground and trans-regional and cross-departmental collaboration in disaster reduction; balance the practice of reducing disaster risks and the sustainable socio-economic.

2.3 Goals and Objectives

2.3.1 Average annual fatalities as a result of natural disasters (excluding devastating ones) will fall sharply compared with those figures for the Tenth Five-Year Plan period; the pro-

portion of average annual economic damages directly incurred by disasters shall be kept well under 1.5% of the corresponding annual GNP.

2.3.2 All provinces, autonomous regions and municipalities directly under the central government and those disaster-prone cities and countries shall set up mechanisms for comprehensive coordination in disaster reduction efforts.

2.3.3 A national platform for information sharing on comprehensive disaster reduction and risk management shall be developed and an effective national system for disaster monitoring, early warning, assessment and disaster response and relief command shall be established.

2.3.4 A responsive system shall be ready to ensure availability and accessibility of food, clean drinking water, clothing, medical care relief and temporary shelters to disaster-hit communities within 24 hours after a disaster occurrence.

2.3.5 Reconstruction programs of disaster-hit buildings shall meet proven standards of disaster resistance; shelters shall be built in all disaster-prone cities, towns and urban-rural communities.

2.3.6 One thousand demonstrative communities for comprehensive disaster reduction

shall be identified, and volunteer programs for disaster reduction and relief shall be launched in 85% of urban-rural communities; at least one disaster information liaison officer shall be available in over 95% of urban-rural communities, and the public awareness of disaster reduction expertise will be raised markedly.

3. Major Tasks

We must complete the following eight tasks during the Eleventh Five-Year Plan period in an effort to build the national capacity for comprehensive disaster reduction. They are:

3.1 Build up capacity for management of natural disaster risks & vulnerabilities and relevant information sourcing.

We shall carry out comprehensive investigations to get a better understanding of natural disaster risks of all kinds in highlighted regions and their capacity for disaster reduction and develop a sound database of natural disaster risks and hidden dangers. We shall examine and assess natural disaster risks of different kinds in highlighted regions in China to help map out a national disaster risk chart of high risk areas and highlighted regions. Built upon these efforts, pilot programs for comprehensive disaster risk assessment on key projects shall be initiated. We need to

establish sound disaster statistical standards, and create a national statistical system for natural disasters and their effects. We shall put in place a four-tier disaster information report system from the central level down through to provincial, municipal and county level. A sound mechanism for prompt disaster information report and verification report shall be developed over time. An inter-departmental communication system shall be established where the NCDRC coordinates efforts and resources while relevant departments share information, come together for discussion and keep one another posted on disaster information. We shall make use of the basic geographical information, economic and social information and disaster information available at different departments to develop a platform for disaster information sharing and releasing and for disaster information analysis, processing and applications.

3.2 Strengthen capacity for natural disaster monitoring, early warning and forecasting.

We shall improve networks for natural disaster monitoring, early warning and forecasting. While working on the development of existing monitoring stations and networks for meteorological, hydrological, seismic, geological, marine and environmental disasters and haz-

ards, China needs to increase the number of monitoring stations and enhance the capabilities for receiving and applying remote sensing data as part of the efforts to build a disaster monitoring system with the support of satellite remote sensing technology. China seeks to build a cover-all three-dimensional natural disaster monitoring system that includes ground monitoring, ocean bed monitoring, and airspace-based monitoring. China will press forward with the comprehensive application and integrated development of infrastructure for disaster monitoring, early warning, develop and extend the application of models and tools for disaster early warning and forecasting as well as relevant high technology in ways that can improve the supporting system for decision making on disaster early warning and forecasting. China will stay focused on building up the capacity for monitoring, early warning and forecasting of frequently occurring disasters including floods, droughts, typhoons, wind and hail, sand and dust storms, earthquakes, landslides, mud and rock flows, wind and storm tides, red tides and forest biological disasters and extreme climatic occurrences such as high temperature and heat waves. China also seeks to develop a sound information release mechanism for disaster early warning and forecasting and make full use of diversified means and media to ensure accurate and

timely release of information related to disaster early warning and forecasting.

3.3 Build up capacity for comprehensive natural disaster prevention and resistance.

Special programs on disaster prevention, response, reduction and relief shall be implemented. China shall make every effort to complete the key disaster reduction projects, including those of flood control, drought relief, earthquake resistance and prevention, wind and storm prevention, sand prevention and control, forest and grassland fire prevention, prevention and control of plant diseases and pests, Sanbei forest shelter and coastal forest shelter. China also needs to underscore comprehensive efforts to harness small-and-medium-sized rivers and reservoirs and areas vulnerable to landslides and mud and rock flows. More financial input shall go to infrastructure construction for farmland water conservancy projects, and facilities shall be upgraded to prevent disasters in areas that are prone to typhoons, floods and earthquakes. On top of that, disaster prevention and resistance capacity shall be built up in large-and-medium-sized industrial bases, traffic arteries and trunks, communications hubs and lifeline projects. Disaster reduction shall be built into the planning of land use and urban planning, post-disaster recov-

ery and reconstruction. In line with the requirements of overall land use planning and the principle of making economical and intensive use of land resources, the authorities concerned shall launch the formulation and construction of special projects on disaster reduction, prevention, and resistance in agriculture and rural areas, in industry and urban areas as well as key regions to elevate the overall capacity for disaster prevention and resistance.

3.4 Build up the national capacity for natural disaster emergency response and relief.

To strengthen the system of command and control for natural disaster emergency response and relief. A sound management system and operational mechanism needs to be developed featuring unified leadership, tiered management, prompt response, well-coordinated delivery and highly efficient operation. The production and revision of natural disaster emergency response and relief plans has to be promoted so that a contingency plan system that can be formed from top to bottom across the board. Network construction of disaster relief material reserves at both central and local levels and that of disaster reduction and relief equipment shall be strengthened. In addition, the construction of specialized relief teams and backbone

relief teams consisting taskforces from civil affairs bodies, the army, armed police, fire-fighting units of the public security agencies should be strengthened. We need to establish and improve a mechanism for social mobilization, bringing into full play the roles of mass organizations, Red Cross societies and other NGOs, grass-roots self-governing bodies and the wider civil society in disaster prevention, response and relief, donation drives, medical relief, sanitation and epidemic control, recovery and reconstruction and post-disaster psychological support. Instructions need to be adopted for volunteer programs of disaster reduction to raise volunteers' awareness of proven experience and expertise in disaster reduction to increase the number of volunteers.

3.5 Build up the capacity for comprehensive response to catastrophic disasters.

China needs to continue research into the correlation between the outbreak mechanism and law of catastrophic disasters and secondary disasters, and embark on simulation programs of major natural mutations and emergency response drills against catastrophic disasters. China will work to develop a sound system, mechanism and policy measures to cope with the risks of catastrophic disasters, develop countermeasures for city clusters in the Yangtze River Delta, the Pearl

River Delta, the Bohai Sea Rim, other key municipalities, and other disaster-prone areas. Proactive drills should be organized to resist catastrophic disasters. China will actively yet steadily continue with the pilot agricultural insurance programs by developing an effective mechanism for agricultural risk prevention and relief that combines mandatory agricultural insurance with financial subsidies. China also needs to explore possibilities of establishing an insurance and reinsurance system against catastrophic disasters in line with China's national conditions and enhance the construction of relevant preventive projects. China seeks an Asia-wide cooperation mechanism in response to catastrophic disasters and establishment of an Asian center for research into catastrophic disasters.

3.6 Build up the capacity for disaster reduction in urban and rural communities.

China will forge ahead with grass-roots disaster reduction efforts and embark on programs of creating role-model communities for comprehensive disaster reduction. Disaster response plans for urban and rural communities need to be improved and community based disaster reduction drills with the local residents' participation shall be organized. Infrastructure for community-based disaster reduction has to be upgraded and disaster-resistant human settlements shall be

launched widely. Efforts are to be made to highlight and strengthen the functions of shelters that will be established in disaster-prone urban and rural communities to reduce disasters. A strong taskforce of disaster information liaison officers shall be set up, and preparedness of residential households in both urban and rural areas shall be enhanced against disasters. A mechanism shall be put in place to protect the vulnerable in a community under emergency situations. The comprehensive capability of urban and rural communities to resist disasters should be improved.

3.7 Build up the capacity of technological support for disaster reduction.

China will enhance scientific research and technological innovation for comprehensive disaster reduction and accelerate the transfer of scientific achievements into disaster reduction practice. R&D of key technologies for disaster reduction shall be strengthened. More studies shall be made into the correlation between different kinds of disasters, between disasters and ecological environment and between disasters and socio-economic development in order to identify medium-and-long-term strategies for scientific and technological development in comprehensive disaster reduction. China will work to expedite the applications of remote sensing,

geographical information system, GPS and network communications technology and transfer of scientific achievements into disaster reduction practice. More financial input should be delivered to sci-tech research for comprehensive disaster reduction. China shall strengthen discipline set-up of subjects on disaster reduction and training of competent personnel, as well as the construction of training bases. China will develop a system of technical standards for comprehensive disaster reduction to improve the level of standardization for comprehensive disaster reduction. Scientists and scientific organizations shall be encouraged to get more involved in scientific research and academic exchanges on disaster reduction.

3.8 Build up the capacity for publicizing and educating the people about scientific disaster reduction knowledge.

People's governments at local levels shall heighten their awareness of the responsibility for disaster reduction, and a mechanism for disaster reduction awareness campaigns involving the collaboration of government agencies, the media and civil organizations shall be established. Knowledge about disaster reduction shall be included in school curriculums and built into three rural outreach campaigns on culture, science & technology and public health. Publicity of awareness

knowledge and specialized education on disaster reduction shall be organized and educational training bases for publicity of scientific knowledge on disaster reduction shall be developed. Training programs shall be offered to disaster reduction professionals to raise the overall performance of the disaster reduction teams. Support will be provided to mass organizations, NGOs and grass-roots self-governing bodies to reach out to the public with the expertise in disaster prevention and danger avoidance. Internet will be utilized to establish a national platform for spreading scientific knowledge about disaster reduction and as an effective tool for interactive long-distance learning on expertise in disaster reduction. Reading materials, wall maps and audio-video products on disaster reduction will be produced as a way of extending local best experiences, successful cases and expertise in disaster reduction to raise the public awareness of disaster prevention and reduction and equip them with the necessary skills.

4. Major Projects

4.1 The survey on comprehensive disaster risks and disaster reduction capacity in key areas across the country.

By using the existing findings of disasters of different kinds, China will conduct a survey on comprehensive disaster risks and disaster

reduction capacity in key areas across the country. It will build a national database system of disaster risks and disaster reduction capacity and create a multi-dimensional risk assessment module bank that covers diversified kinds of disasters. It will set up a national platform for disaster risk management and platforms for key regions so as to form an operational system for disaster risk monitoring and assessment at the national level and in key regions. China will map out a national chart of comprehensive disaster risks (with the scale of 1: 1000000 at national level, 1: 250000 at provincial level, and 1: 50000 for high-risk and key regions). Pilot surveys on disaster risks and disaster reduction capacity will be conducted in the following seven regions: North China, Northeast China, East China, Central China, South China, Northwest China and Southwest China in an attempt to build a system of standards and indicators for disaster risk assessment. Training programs will be offered to expedite the nationwide survey on comprehensive disaster risks and disaster reduction capacity. Hidden risks of disasters and weak links in disaster reduction shall be identified, and existing disaster reduction capacities shall be assessed in order to provide scientific rationale for the central and local governments to elevate comprehensive disaster reduction capacity and cope with disaster risks.

4.2 Constructing the project of a national four-grade system of command and control for disaster response and relief.

In the light of the Outline of the Eleventh Five-Year Plan for National Economic and Social Development, China will build a national four-grade system of command and control for disaster response and relief, which will integrate tightly into existing resources and systems of the central authorities, local governments at different levels and relevant specialized agencies. By making full use of the resources of the national public communications network and e-government administration platform, and by adopting the latest communications and network technologies, China will strengthen its capabilities for maintaining communication and guaranteeing the smooth transmission of information in times of emergencies, and providing data to support the emergency platform of the State Council. Based on the national emergency communications platform, China will establish an information platform for natural disasters, including a database of disaster relief operations, an index system for information resources, data collection and exchange system. It will also build a supporting platform for emergency decision-making, including systems for emergency on-duty arrangement, disaster impact assessment, resource management, and program formulation & execu-

tion management. It will develop a platform for emergency command and dispatching, including command and control centers for disaster response at all levels and on-site mobile command and control system for emergency response. We shall ensure the linkup between different platforms and create a national system of command and control for disaster response and relief that is omni-functional, operational from top to bottom across the board with high efficiency.

4.3 The establishment of a national reserve system for disaster relief supplies.

Acting upon the principles of comprehensive planning, cost-effective investment and resource integration, China will build some new warehouses for disaster relief supplies, rebuild and expand some existing warehouses and use existing national reserve warehouses to develop a national reserve network for disaster relief supplies. Responding to actual demand for disaster relief, it will increase the varieties as well as the quantities of the reserve supplies. By 2010, it will create a national reserve system for disaster relief supplies that features unified command and control, moderate scale, reasonable distribution, complete functions, quick response, highly efficient operation, strong assurance that suits China's conditions.

4.4 The project of disaster reduction with

the application of satellite technology.

China will assess its future needs for satellites by looking on the satellite and ground application system of the "2+1" phase of the moonlet constellation for environment and disaster monitoring and forecasting, and the national high-resolution airspace-based monitoring system. It will work hard to facilitate the capacity building for stable and highly efficient disaster monitoring, taking full advantage of existing and established data sources collected by military and civil remote sensing satellites of different kinds and make comprehensive use of aeronautical and space remote sensing resources available both inside and outside China. By establishing application network systems at the national, regional and provincial levels, China will develop an remote sensing operational system that is capable of disaster monitoring and early warning, dynamic assessment, decision-making support and product-related services and acquire the capability to provide the disaster reduction services using space technology which can integrate space, the ground and the scene of the disaster all in one. At the same time, China will promote the application of navigation satellites in disaster reduction programs and develop eventually a national satellite system for disaster reduction consisting of aeronautical and space remote sensing, satellite communications, satellite

navigation, ground application & networks.

4.5 The establishment of a regional research center on catastrophic disasters in Asia.

China will strengthen its capabilities to resist catastrophic disasters, boost Asia-wide cooperation on disaster reduction and establish a regional research center on catastrophic disasters in Asia in the light of the basic framework of "small center, big network." It will undertake simulation experiments on prevention of and response to catastrophic disasters, risk management of catastrophic disasters and major natural mutations, and establish a lab for simulation experiments on catastrophic disaster responses. China will engage in Asia-wide information sharing on catastrophic disasters, collect and study basic data and cases of regional catastrophic disasters, and develop a platform and a website for information sharing on regional disasters in Asia. It will carry out researches on mechanisms of occurrence of catastrophic disasters in Asia, disaster reduction policies and cooperation mechanisms on disaster reduction, and formulate strategies and policies to resist catastrophic disasters.

4.6 The demonstration project of disaster reduction capacity building in communities.

China will embark on nationwide programs of building role-model communities for comprehensive disaster reduction, set up a working mechanism for community disaster reduction in both urban and rural areas, improve relevant emergency plans, and organize community-based disaster reduction and relief drills. It will strengthen the capabilities for disaster monitoring and early warning in communities, create a team of disaster information liaison officers and volunteers for the communities, and construct 1000 demonstration communities for comprehensive disaster reduction. China will build exemplary community-based shelters in middle-sized and large cities and high-risk areas that are vulnerable to typhoons, wind and storm tides, floods, earthquakes, landslides, mud and rock flows and sand and dust storms. It will formulate and improve standards of disaster resistance for civil dwellings in both urban and rural areas, strengthen comprehensive planning and guidance, and launch programs to set up exemplary cities and counties for disaster reduction and safe settlement so as to strengthen communities' overall capabilities in resisting disasters in both urban and rural areas.

4.7 The scientific publicity program for disaster reduction education.

China will develop publicity and educational

products for disaster reduction, edit a series of relevant science reading materials, wall maps and audio-video products, and compile course books on case studies for the publicity campaigns. It will establish an internet-based platform for disaster reduction awareness campaigns and long-distance education programs. It will set up bulletin boards in public places to spread disaster reduction expertise, launch special TV and radio programs dedicated to the publicity campaigns, and make not-for-profit advertisements on disaster reduction. It will organize diversified kinds of awareness campaigns and activities on disaster reduction to let the public know about the necessary skills and expertise in disaster prevention and how to avoid dangers. It will establish 100 education bases for disaster reduction awareness nationwide by making best use of existing venues and facilities.

4.8 The technological innovation and transfer of scientific achievements into disaster reduction.

China will promote technological innovation and the direct transfer of scientific achievements into disaster reduction and relief work. It will give priority to the innovation and utilization of technologies, equipment, devices, disaster relief supplies, medical and sanitation & anti-epidemic supplies that are involved in disaster reduction efforts. We will make full

use of scientific achievements from national sci-tech programs to promote the applications of hi-tech relief equipment, communication tools, water-saving irrigation and drought-relief technologies. China will facilitate the comprehensive utilization of technologies of information collecting, obtaining, transmission, analysis and processing in disaster reduction to elevate scientific and technological application level in this area.

5. Safeguard Measures

5.1 Strengthen the institutional set-up of a national system and mechanism for comprehensive disaster reduction management.

Under the unified leadership of the CCCPC and the State Council, China will continue to improve management system and operational mechanism on disaster reduction, strengthen the functions of the NCDRC as a comprehensive coordinator, and develop a sound three-tier coordination mechanism for comprehensive disaster reduction, i.e., from the provincial to municipal and county levels. It will implement the accountability system, whereby different regions and departments know their functions and responsibilities, as well as their goals and tasks. China will develop a system of performance evaluation on disaster reduction work and an effective ac-

countability system to assure all administrative leadership knows their responsibilities. China will improve coordination and joint action in disaster reduction by establishing a coordinative mechanism between the NCDRC and its member organizations, local governments and other relevant departments and institutions. It must develop a sound system and mechanism for mobilizing all forces of the society into disaster reduction. By 2010, China will have created a national system for comprehensive disaster reduction characterized by unified leadership of the central government, collaboration among competent departments, involvement of all of the society, complete functions, high effectiveness and efficiency and urban-rural coverage. It will strengthen the disaster resistance capabilities of the state and the general public in all aspects, ensure the safety and security of the people and property, boost socio-economic development and contribute to the program of building a harmonious socialist society.

5.2 Integrate disaster reduction into the national overall planning of economic and social development.

The governments of all localities and relevant departments shall, in the light of their own conditions and with reference to the Eleventh Five-Year Plan for National Economic and Social Development, work out the disaster

reduction plan for their locality or sector and integrate it into the national plan for economic and social development. They must act upon the requirements of the National Plan to optimize and deploy disaster reduction resources of all kinds and ensure the key projects and infrastructure construction are carried out without failure. The construction of key projects should be closely linked with comprehensive disaster reduction programs and take a long-term perspective of disaster prevention and reduction. Efforts should be made to ensure the safe operation of these projects in order to maximize their benefits to the society, economy and ecological environment. They will be subject to procedures of examination and approval regarding project construction and conditional on the availability of investment from the state.

5.3 Enhance legislation on disaster reduction; develop a sound system of standards on disaster reduction.

China will press forward with the legislative and regulatory development on disaster reduction. It will enact and revise laws and regulations on natural disaster reduction and relief. It will formulate national standards for disaster reduction, and related technical and management standards. Relevant departments of the State Council are required to draft, formulate and revise laws, administra-

tive and departmental regulations and corresponding standards on disaster reduction in the light of the actual needs of work. Local governments shall act in accordance with relevant laws and administrative regulations and in line with local actualities to institute or revise local regulations and provisions on disaster reduction. All these efforts are designed to regulate disaster reduction efforts in all dimensions and ensure law-based disaster reduction.

5.4 Increase funds to disaster reduction.

Ensure that appropriations for disaster reduction from both the central and local budgets are in step with socio-economic development. China will develop a sound mechanism for appropriations for disaster reduction. People's governments at different levels shall increase their respective appropriations for disaster reduction based on the real needs and financial affordability and build the appropriations into their fiscal budgets in line with inter-governmental division of decision-making. More funds from the central budget will go to support disaster reduction efforts in central and western China. The state will raise the standards of disaster relief and improve packages of disaster relief allowances. It will step up studies on policies regarding the role of the insurance industry in disaster prevention and reduction and launch pilot programs

to test the effects. Citizens and businesses are encouraged to be covered by insurance schemes to make full use of insurance's functions in covering, shifting and shouldering economic losses incurred by natural disasters. China will mobilize the civil society into action to raise funds for disaster reduction through diversified channels. It will develop a sound mobilization mechanism, boost donation drives and bolster charity programs.

5.5 Foster and develop a contingent of disaster reduction professionals.

China will develop the system of education and training programs for disaster reduction professionals; enhance the capacity to undertake comprehensive and multi-tiered education programs on disaster reduction technologies for improved overall performance of the disaster reduction personnel. It will increase financial and equipment input to build up the capacity of disaster reduction contingents particularly those at the grass-roots level for disaster response and relief. Based on the actual needs of disaster reduction, it will focus on overall planning and coordination and optimize the structure of disaster reduction professionals, and achieve balanced development between the professionals and experts in disaster reduction. China will create a safe cultural atmosphere that encourages the entire civil society to join in

disaster reduction programs. It will foster non-profit NGOs and volunteer groups dedicated to disaster reduction. It will give full scope to the mainstay role of the PLA, armed police, firefighting troops, militia and reserve forces in disaster reduction and relief.

5.6 Actively engage in international exchanges and cooperation on disaster reduction.

China will step up international exchanges and cooperation in the field of disaster reduction, such as information management, awareness and education campaign, specialized training, technical R&D and international humanitarian assistance. It will share with the rest of the world China's achievements and experience in disaster reduction and draw on the good practices and experiences of other countries. China will develop a sound mechanism for international exchanges and cooperation on disaster reduction with the UN agencies, international or regional organizations on disaster reduction, national governments and NGOs. It will give full play to the important role of China in Asia-wide disaster reduction efforts and push forward the implementation of Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters and Beijing Action Plan for Disaster Risk Reduction in Asia.